

**MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY**

**TRANSIT-ORIENTED DEVELOPMENT (TOD)
POLICIES AND GUIDELINES**

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TOD POLICIES AND GUIDELINES

PART I: INTRODUCTION

This document is a jointly issued statement by the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Bay Transportation Authority (MBTA) about how they hope to see transit-oriented development (TOD) projects planned and implemented around MBTA rail and bus stations. This document is intended for multiple audiences: MassDOT and MBTA staff; city and town governments; state and regional agencies; community groups; and private developers. It consists of three parts:

- **Part I: Introduction** provides a framework for understanding TOD, TOD's value to the transit system, and the roles of MassDOT and the MBTA as TOD sponsors, stakeholders, and advocates.
- **Part II: TOD Policies** describes the high-level policy goals that guide MassDOT and the MBTA in pursuing TOD.
- **Part III: TOD Guidelines** sets forth the specific procedures that MassDOT and the MBTA will follow in implementing TOD projects and the standards and outcomes they will seek to achieve.

For decades, the MBTA has sponsored TOD projects that collectively produced thousands of residential units, millions of square feet of commercial space, and tens of millions of dollars in non-fare revenue to support the transit system. The purpose of this document is not to initiate a TOD program. Rather, this document articulates a policy that reflects an on-going effort and development vision.

MassDOT is the Commonwealth's coordinating entity for transportation policy and shares the MBTA's focus on TOD. Moreover, MassDOT owns highway and railroad properties in the vicinity of MBTA stations and has sponsored numerous, high-impact TOD projects. To the degree applicable, it is MassDOT's intent that the disposition of such property reflect the same TOD policies and guidelines as the MBTA's.¹

What is TOD?

Development in Greater Boston has organized around public transit since the earliest days of ferries and horse-drawn streetcars.² Today, a disproportionate share of housing and jobs are located near transit.³ A new generation of TOD that applies best practices developed in this and other transit metropolises is an essential part of our regional vision for continued, sustainable growth. The Metropolitan Area Planning

¹ MassDOT real property dispositions in non-TOD contexts are not affected by this document.

² In this document, "Greater Boston" refers to the 164-municipality metropolitan region generally used by the Metropolitan Area Planning Council and the Central Transportation Planning Staff. This region contains the entire MBTA rapid transit system and nearly all of its commuter rail stations. As used in this document, there is no technical or legal significance to the designation.

³ In 2012, when the Metropolitan Area Planning Council (MAPC) published its study of station area development, 25% of Greater Boston's housing, and 37% of its jobs, were already found within a half-mile of a rapid transit or commuter rail station. (Metropolitan Area Planning Council, *Growing Station Areas* (2012). Since then, tens of thousands of both housing units and jobs have been built, permitted, or planned near transit.

Council's guiding vision document, *Metro Future*, reaffirms the critical role TOD will play in our region's economic competitiveness, sustainability, and quality of life.⁴

TOD means more than locating individual buildings or projects near transit. It is a pattern of land use that ties development to transit in a synergistic way at the station, corridor, and regional level. Successful TODs in varying neighborhood and community contexts share four foundational principles:

- density and mix of uses;
- equitable development;
- a great public realm;
- a TOD approach to parking.

Development in Massachusetts is regulated by cities and towns and, when applicable, by the Commonwealth through the Massachusetts Environmental Policy Act (MEPA) and other state regulations. This is not a regulatory document; it is a statement of policy about how MassDOT and the MBTA intend to pursue development on their own land, subject to applicable law, and how they will encourage high-quality, transit-oriented development on land owned by others.

What is the role of MassDOT and the MBTA?

MassDOT and the MBTA own thousands of acres of land around MBTA stations, much of it strategically located from a transit and economic development perspective. How can MassDOT and the MBTA leverage this position to advance TOD? They can play three complementary roles:

- As **TOD sponsors** through joint development. Joint development is the subset of TOD that is undertaken by developers on MassDOT or MBTA property, or is connected to a station. As a project sponsor, MassDOT or the MBTA can determine (consistent with local jurisdictions) the density, composition, and amenities of development on their own land and influence by example other station area development.
- As **TOD stakeholders** for development on land owned by others. While land use regulation is a municipal responsibility, MassDOT and the MBTA can take an active interest in station area planning and zoning, project reviews, or applications for development incentives.
- As **TOD advocates** for supportive public policies. In partnership with elected officials, Regional Planning Agencies, public interest organizations, and the development community, MassDOT and the MBTA can advocate for Smart Growth, affordable and workforce housing, infrastructure finance, and other policies that support TOD.

Why is TOD important to MassDOT and the MBTA?

MassDOT is the steward of the Commonwealth's overall transportation agency, including its regional transit providers. The MBTA is a public transit agency that is focused on the operation and wellbeing of the nation's fifth largest mass transit system based on daily ridership. TOD is important to MassDOT and the MBTA because of the following three reasons:

- TOD is a fundamental strategy for advancing economic and community development that is successful, sustainable, healthful, and equitable. TOD allows regional growth to occur with fewer

⁴ MAPC, *Metro Future* (2008).

vehicle miles traveled, lower greenhouse gas emissions, and far less impact on undeveloped land than would otherwise be possible. MassDOT and the MBTA oversee the regional transportation system and have essential roles in this effort.

- TOD can support MassDOT's and the MBTA's operating and capital needs by generating respectively non-toll and non-farebox revenue through joint development and value capture. Additionally, TOD can help attract federal grant funding that favor transit projects supportive of TOD.⁵
- TOD generates transit ridership. Putting more people on trains, buses, and ferries expands everyday revenue at the farebox for the MBTA and shifts some of the region's daily travel off the highway network to mitigate congestion and infrastructure wear.

PART II. TOD POLICIES

TOD Policies are high-level goals that provide guidance to MassDOT's and the MBTA's pursuit of transit-oriented development. These policies can be placed into two categories:

- the **conduct** of TOD—how MassDOT and the MBTA approach their roles as TOD sponsors, stakeholders, and advocates;
- the **content** of TOD—what are the four foundational principles of TOD: density and mixed uses; equitable development; a great public realm; and a TOD approach to parking.

The Conduct of TOD

Joint Development

Joint development is the subset of TOD that is undertaken by developers on MassDOT or MBTA property or is otherwise connected to a station through a development transaction to which MassDOT or the MBTA is a party. MassDOT and the MBTA play the role of TOD sponsors in joint developments.

Examples of joint development on MassDOT or MBTA property are the transformation of North Station, Causeway Street, and the Bullfinch Triangle, and the mixed-use redevelopment of the MBTA parking lot at North Quincy Station. Examples of joint developments connected to a station include Assembly Row and Boston Landing, where adjacent landowners participated directly in station design and construction.

The policy of both MassDOT and the MBTA is to make a property available for joint development through a competitive procurement process that includes solicitations and negotiations that are fair, transparent, timely, and accessible to a broad range of developers.

Proposals by municipalities or adjacent land owners to connect to a station or to participate in its funding, design, or delivery will be evaluated as they arise. In either case, the process will be designed to promote projects that reflect the TOD Policies and Guidelines set forth in this document and to optimize the value of the transaction for MassDOT or the MBTA, as the case may be.

⁵ The Federal Transit Administration's Capital Investment Grant program uses six evaluation criteria, two of which—Land Use and Economic Development—are TOD-related. The US Department of Transportation's TIGER discretionary grant includes among its five primary evaluation criteria three that are TOD-related: economic competitiveness, livability, and sustainability.

Joint development proceeds can be in cash or in-kind, and they can be structured in a variety of ways. Most joint development projects generate sale or lease payments that are applied to MassDOT or the MBTA budget. Developers can also fund or build new or modernized stations. A developer may assume responsibility for operation and maintenance, particularly where station facilities and commercial development share common areas, such as at North, South, and Back Bay Stations.

Station Area Planning and Development

MassDOT and the MBTA may play the roles of TOD stakeholders and TOD advocates in station area planning and development; and will, at their discretion, support TOD initiatives consistent with these Policies and Guidelines. This support may include, but is not limited to, commenting on MEPA reviews, zoning reviews, City of Boston Article 80 reviews, Growth District or Gateway City designations, state infrastructure grant applications, or economic development and affordable housing financial incentives.

MassDOT and the MBTA encourage cities and towns to adopt Chapter 40R zoning, TOD overlay districts, and other zoning tools that allow density, mixed-use development, public realm design, and parking requirements consistent with these TOD Policies and Guidelines. To this end, MassDOT and the MBTA also encourage cities and towns to take advantage of technical assistance programs offered by Regional Planning Agencies, the Department of Housing and Community Development, and the Massachusetts Development Finance Agency (MassDevelopment).

A Diversity of Stations

MassDOT and the MBTA understand that a one-size-fits-all formulation does not appropriately support TOD. Density, the mix of uses, the design of the public realm, and the approach to parking vary across different types of station areas. Additionally, the expectations of how these qualities might change over time as TOD evolves may also vary.

Regional TOD strategies often use station typologies to help planners understand station areas in terms of their existing conditions as well as their aspirational futures. The Metropolitan Area Planning Council (MAPC) developed a ten-category station typology encompassing the MBTA's 289 rail transit, bus rapid transit, and commuter rail stations.⁶ MassDOT and the MBTA embrace the MAPC Station Typology as an integral part of these TOD Guidelines. The ten categories, driven by data analysis and actual development plans, are listed below; they are described in detail and mapped in Appendix A.

<ul style="list-style-type: none"> • Metro Core • Seaport/Airport • Transformational Subway • Transit Neighborhood • Trolley Suburb 	<ul style="list-style-type: none"> • Urban Gateway • Town & Village • Suburban Transformation • Commerce Park • Undeveloped
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Value Capture

Value capture is an important element of station area planning and development and provides an opportunity to leverage additional resources to enhance and sustain the transportation system. Value capture occurs when an infrastructure investment creates enhanced real estate value, a portion of which is

⁶ MAPC, *Growing Station Areas* (2012).

“captured”, as development occurs, to help finance or maintain the infrastructure in question. Joint development is one form of value capture. The other is district-based value capture, in which a district is drawn around the proposed public improvement and a share of the enhanced land value is captured from all affected properties, usually through tax increment financing or special assessment. Value capture is widely used in the United States for public infrastructure in general, and can be used more specifically for transit projects.⁷

MassDOT and the MBTA support the application of value capture to TOD infrastructure and to transit. Massachusetts has three district-based value capture options: District Infrastructure Finance (DIF), the Infrastructure Investment Incentive Program (I-Cubed), and the Local Infrastructure Development Program (LIDP).⁸ The district infrastructure for Worcester’s City Square and Somerville’s Assembly Row were financed in part through District Infrastructure Financing (DIF). Westwood’s University Station and Boston’s Boston Landing received I-Cubed support, which in the latter case included financing of the new commuter rail station.

In 2015, Congress amended two federal transportation loan programs to support TOD. As a result, the “TIFIA” and “RRIF” programs can be used for TOD-related infrastructure and, under certain conditions, for TOD projects themselves. MassDOT and the MBTA may choose to support applications of the latter. These programs provide a flexible option for structuring value capture transactions.

The Content of TOD: Foundational Principles

A. Density and Mix of Uses

The first foundational principle of TOD is the concentration of dense, mixed-use development within walking distance of stations. Density places more homes, jobs, retail, offices, and recreational activities within walking distance of transit. It is essential to understand that TOD density is a relative goal that reflects place and context. High-density developments in Boston’s downtown, in a Gateway City downtown, and in a village or neighborhood center will differ markedly in scale from each other, and yet each generally exceeds the intensity of development in areas not directly served by transit.

When combined with a mix of uses, density enables the transit system to make more efficient use of its vehicular and operational capacity. During peak commuting hours, the mix of origins and destinations creates demand for reverse commuting (outbound from the system core), and for commuting that occurs entirely outside the system core. When non-work destinations are added—cultural or athletic venues, “destination retail”, academic institutions—the station attracts off-peak riders from all directions.

Mixed-use development is not a cookie-cutter formulation. It can be achieved in several ways: *vertically*, where individual buildings combine active uses at street level with residential or commercial uses above;

⁷ Examples are the Seattle and Portland streetcars, Denver Union Station, San Francisco’s Transbay Terminal, New York’s Number 7 Subway Extension, Washington’s New York Avenue Red Line station, and five stations on the Los Angeles Red Line. “Expanding the Use of Value for Transportation and TOD in Massachusetts” is a 2017 analysis written by Strategic Economics and published by MAPC that provides a series of case studies and recommendations about how to enhance the use of value capture. <http://www.mapc.org/valuecapture>

⁸ TIFIA: Transportation Infrastructure Finance & Innovation Act; RRIF: Railroad Rehabilitation & Improvement Financing. For descriptions, see Definitions (Appendix C).

horizontally, where different uses are located within close walking distance of each other; or *distributed*, among nearby stations in a corridor segment.

An added benefit of a mixed-use environment is that some daily trips can be taken by foot rather than by automobile. In addition to people who can walk to work or to school, other routine activities like going to lunch and running errands can also become “trips not taken.” Research has established conclusively that development which is dense, mixed-use, walkable, and transit-oriented results in significantly lower per capita vehicle miles traveled and greenhouse gas emissions.⁹

B. Equitable Development

For MassDOT and the MBTA, equity is a foundational principle of transit-oriented development. The inclusion of affordable and workforce housing can help offset gentrifying pressure on community residents and businesses. TOD can connect housing with jobs, reducing a household’s combined cost of housing and commuting. As employment becomes more decentralized, jobs located near transit remain accessible to households that cannot afford to own one automobile per worker.

Affordability. Bringing TOD, or transit itself, into low-income communities, or communities experiencing a lack of investment, is generally beneficial. However, TOD can also place upward pressure on property values and result in gentrification. Minimizing and preventing displacement is key to mitigating the impacts of gentrification. In a housing market like Greater Boston’s, this double-edged impact is an issue for low-income neighborhoods as well as for working class neighborhoods, inner-ring suburbs, and Gateway Cities.

From an equity perspective, there is inherent value in producing housing at transit-supportive densities within walking distance of stations, particularly if many of the units are rental. Greater supply helps mitigate rent levels, and research has shown that rental apartment density is a predictor of transit use and reduced per capita Vehicle Miles Traveled.¹⁰ However, equity is better served if a meaningful share of housing production is affordable for low-income and/or moderate-income/workforce households. A wide range of projects across Greater Boston has shown that with the concerted application of available financing tools and the participation of both for-profit and non-profit developers, the market can produce attractive and viable mixed-income housing. The policy of MassDOT and the MBTA is to require a meaningful share of affordable and/or moderate/workforce units in their own joint development projects and to encourage similar outcomes in other station-area projects.¹¹

Job access. Housing costs can also be offset, to a degree, by savings in the daily work commute. The Center for Neighborhood Technology has devised a combined metric, the H+T Affordability Index. Rather than the traditional affordability benchmark, in which no more than 30% of household income is devoted to housing, the H+T benchmark is that no more than 45% is devoted to housing *plus* transportation costs. A neighborhood that a family might find unaffordable based on housing costs alone may be manageable if daily commuting costs are low because of access to public transit. Automobile

⁹ Ibid. Among the many national studies is the seminal work by the Urban Land Institute (Reid Ewing *et al.*), *Growing Cooler: the Evidence on Urban Development and Climate Change*; 2008.

¹⁰ Stephanie Pollack, How Can Equity in TOD Be Defined and Measured? (Rail~volution 2014)

¹¹ Affordable Housing and Workforce Housing are defined in Appendix C.

ownership and average household transportation costs in Greater Boston are significantly higher than in the City of Boston and other “inner core” communities with concentrated MBTA service.¹²

However, the affordability benefit of living near transit is only realized if one’s job is transit-accessible as well. TOD offers two strategies for enhancing job access. One strategy is to consciously develop concentrations of jobs in high-capacity transit locations. For example, Partners’ HealthCare is the region’s largest private employer and narrowed its search for a consolidated administrative headquarters site for 4,500 workers to two MBTA Orange Line stations in the region’s Inner Core. Partners’ Healthcare selected the transit-accessible Assembly Square in Somerville. Other examples are the location of Boston Public School Headquarters at Dudley Station; the attraction of three shoe company headquarters and General Electric headquarters to transit settings; and the preservation of blue-collar jobs in Boston’s Marine Industrial Park.

The other strategy is to provide seamless last-mile connections from the station to the workplace. This challenge may arise at outlying commuter rail stations or in the very heart of the system, where thousands of workers in the Longwood Medical Area, Kendall Square, and the South Boston Waterfront use district- or employer-funded shuttles to bridge the gap from the rail transit system to their jobs.

Equitable investment. Beyond affordability and job access, TOD can be structured in ways that invest in the fabric of a community. TOD plans should provide community services and amenities when appropriate. New TOD, particularly in city, town, and neighborhood centers, should be planned in a way that adds vitality to existing local businesses and creates opportunities for new ones. And where possible, TOD can build equity in community institutions through the participation of Community Development Corporations.

Sustainability. A final dimension of equitable development is the project’s impact on the region’s natural resources and carbon footprint. Where applicable, MassDOT and the MBTA will strongly encourage joint development projects to meet the requirements for certification at a level of at least LEED Silver (or its equivalent in a comparable rating system). In coastal locations subject to storm surge or sea level rise, joint development projects will be required to incorporate appropriate water-resiliency measures.

C. A Great Public Realm

Every transit rider is a pedestrian, and successful TOD is pedestrian-friendly. A high-quality public realm *designed to support TOD and transit use* is essential to providing safe and efficient access to the development site for all users. This means that station areas have safe, interconnected walking environments with attention to sidewalks, plazas, lighting, way-finding, and amenities when appropriate. To the greatest degree possible, station area streets are complete streets, accommodating bicycles and feeder transit connections as well as pedestrians and cars. Station access is prioritized for pedestrians, transit riders, and cyclists. Based on urban design lessons and best practices, a successful TOD public realm will achieve several inter-related objectives:

- Unifying the station area through a seamless pedestrian network that connects buildings to the station or bus stop and to each other;
- Providing an amenity-rich environment that encourages people to walk within the station area and to gather in parks and plazas;

¹² Center for Neighborhood Technology; <http://htaindex.cnt.org/map/>; MAPC <http://tstation.info/>; MAPC, *Metro Boston Regional Indicators; Transportation: Staying on Track* (2017).

- Connecting the sidewalk and the ground floors of buildings through a “streetwall” that is permeable and emphasizes “public gathering” uses such as retail, restaurants, and cultural spaces;
- Providing full, Americans with Disabilities Act (ADA)-compliant accessibility for all pedestrians, including seniors, those with disabilities, and adults with baby carriages and strollers;
- Using a pattern of complete streets and small blocks to accommodate pedestrians, bicyclists, feeder buses, and shuttles as well as automobiles;
- Where applicable, connecting “rail trails”, community paths, and other types of Alternative Transportation Corridors directly to stations.

Implementation. Even in established city, town, or neighborhood centers, high-quality TOD infrastructure can be costly. In more transformational settings, a new grid of streets, sidewalks, and public spaces may have to be built from scratch. In station areas with challenging topography or right-of-way constraints, pedestrian and bicycle connectivity may require non-vehicular bridges or trails.

Project proponents are encouraged to contribute to improving the public realm where applicable. The Commonwealth provides funding for regional development and Smart Growth infrastructure investments, on a competitive basis, through the MassWorks grant program. Among MassWorks’ principle funding targets program are TOD-related projects around MBTA transit and commuter rail stations.¹³ TOD public realm investments may also be supported by value capture generated by the projects themselves, including but not limited to the three state financing programs (DIF, I-Cubed, and LIDP) and the newly available federal loan programs (TIFIA and RRIF) described previously.

D. A TOD Approach to Parking

The policy of the MBTA and MassDOT is to “right-size” the overall parking supply in TOD settings, encourage shared parking, and ensure that parking is designed so as not to dominate the streetscape or permanently block development on sites most convenient to the station. Data on local parking utilization rates, when available, could be utilized to better match the supply of parking to actual need and minimize the development of underutilized spaces.¹⁴

Where mixed-use development is clustered around transit, less parking is needed, for three distinct reasons. First, many people come and go by transit rather than driving. Second, the mix of uses allows some trips to be made on foot. And third, uses with different peak activity patterns can share parking facilities. For example, retail and entertainment activities whose peak demand occurs at night and on weekends can share parking with traditional workday uses like offices and park-and-ride. Parking is costly, consuming either land (approximately an acre per 140 spaces in surface lots) or money (in Greater Boston, typically \$25-30,000 per space in above ground garages, \$50-60,000 per space below ground). By providing fewer physical spaces, TOD can help achieve more affordable density.

Park-and-ride. As a mode of access to the transit system, park-and-ride generally belongs at or near the outer ends of rapid transit or commuter rail corridors; even there, the location and design of facilities is important. The MBTA’s first generation of park-and-ride garages was built for maximum adjacency to the station entrance. Today, when garages are built or replaced, a short walk to the entrance may be

¹³ See <http://www.mass.gov/hed/economic/eohed/pro/infrastructure/massworks/round-results/> for the year-by-year listing.

¹⁴ MAPC’s “Perfect Fit Parking” study identified that on average, there was 26% vacancy rate at peak times at multi-family residential buildings in five urbanized communities near transit north of Boston.

preferable—allowing the land immediately next to the station to be developed and offering park-and-ride customers a path lined with retail, coffee, or services. Where new park-and-ride garages are built next to the station, the effect should be to free up the most desirable frontage for TOD; Wonderland in Revere, with parking on the land side of the station and TOD on the ocean side, is a good example.

Surface park-and-ride lots often serve as a land bank for future joint development.¹⁵ A significant cost hurdle for the development of these lots is to replace the spaces within a structured garage. The MBTA, like several peer transit agencies, determines the appropriate replacement percentage on a case-by-case basis, taking into account all of the transaction’s revenue and ridership components.¹⁶

Parking for TOD. TOD has never meant “no parking.” TOD most often require parking, but less than a comparable development program in a non-transit setting. Many local zoning jurisdictions across the United States have adopted TOD zoning districts or overlays that reduce significantly the required parking ratios, especially within a core radius around the station. It is not uncommon for TOD zoning to utilize maximum parking ratios alongside or instead of the traditional minimums. Equally important, the TOD marketplace recognizes the reduced parking concept as an economic advantage, as developers seek and gain approval to build at ratios far below traditional zoning levels. In many parts of the MBTA service area, local government, non-profit organizations, and major employers collaborate, through Transportation Management Associations (TMAs) or other Transportation Demand Management (TDM) efforts, to reduce parking demand by promoting transit and other commuting alternatives.

¹⁵ In 2011, the MBTA securitized its system-wide park-and-ride revenues. The structure of that transaction does not prevent the MBTA from converting a parking lot into a joint development parcel.

¹⁶ BART, WMATA, and MARTA have formally adopted such a policy. The Federal Transit Administration has confirmed that in several circumstances, less than 100% replacement is acceptable, even where park-and-ride was part of an FTA-funded project.

PART III: TOD GUIDELINES

The TOD Guidelines translate the policies articulated in Part II into specific procedures and standards. There are two sections:

- The Joint Development Procedures that MassDOT and the MBTA will follow in soliciting developers and disposing of property for joint development projects.
- Substantive standards based on the four foundational TOD principles.

Applicability. As a non-regulatory statement of policy, the TOD Guidelines are not strictly tied to any geographic boundaries. In general, however, they are meant to cover the following areas:

- A half-mile radius around any MBTA rail transit, bus rapid transit, or commuter rail station.¹⁷ This radius reflects the Federal Transit Administration’s land use and economic development metrics, as well as MAPC’s extensive research on MBTA station areas. It also approximates the “walkshed” of a high-capacity transit station in an established transit market like Greater Boston.
- A quarter-mile walkshed around key community bus corridors, such as Hyde Park Avenue, Blue Hill Avenue, Harvard Street, Massachusetts Avenue, Arsenal Street, or Centre Street.
- A half-mile around any rail station or regional transit hub where MassDOT may have property available for development. Examples include Springfield Union Station, other passenger rail stations in western Massachusetts, and the downtown bus transit hubs operated by several Regional Transit Authorities.

The Joint Development Procedures apply to MassDOT or MBTA property dispositions within these areas. The substantive standards with respect to density, use, equity, the public realm, and parking will guide MassDOT and MBTA TOD planning in these same areas, with particular focus on the quarter-mile “core” around rapid transit and commuter rail stations.¹⁸

In terms of the MAPC Station Typology described earlier, the Guidelines apply broadly to eight of the ten typology categories. The exceptions are the Commerce Park and Undeveloped Station categories, which do not readily lend themselves to typical TOD standards of density, mixed uses, and parking. Some aspects of the public realm and equitable development guidelines apply to Commerce Park stations, as noted in the corresponding sections.

The MassDOT/MBTA Joint Development Procedures

The Joint Development Procedures are stated in their entirety in Appendix B. With minor exceptions noted in that document, the procedures are identical for MassDOT and the MBTA. The Joint Development Procedures include, but are not limited to, the following topics:

¹⁷ The Guidelines apply to all commuter rail stations within Massachusetts, including those located outside the MBTA district and served through contracts with Regional Transit Authorities. Several of these stations are in Gateway Cities, such as Attleboro, Brockton, Fitchburg, Leominster, Haverhill, Lowell, Lawrence, and Worcester. MBTA commuter rail stations outside Massachusetts are covered for purposes of general guidance only.

¹⁸ For planning purposes, it is also recognized that some aspects of TOD can occur outside a station’s walkshed if its *zone of influence* is expanded by a reliable “first mile/last mile” connection. A specific employer or residential development may provide a dedicated shuttle. The local road network may provide safe routes for bicycles, creating a “bikeshed” considerably larger than a half-mile. The transit agency or a Transportation Management Association (TMA) may operate a shuttle or collector linking an entire district to the station. Or the station itself may provide car-share, bike-share, ride-share, taxi, collector, and shuttle services—an emerging combination often called a “mobility hub”.

- How MassDOT or the MBTA determines when to make a property available for joint development;
- The Invitation to Bid (ITB) or similar instrument that constitutes a competitive developer solicitation;
- The selection criteria to be included in a given ITB;
- The internal and external consultation process to be undertaken by MassDOT or the MBTA in connection with a Joint Development project;
- The incorporation in the ITB, on a site-specific basis, of the TOD Guidelines with respect to density and use, equitable development, the public realm, and parking;
- The criteria for disposition through long-term ground lease versus sale;
- The process for selecting a developer, awarding a Preliminary Developer Designation, negotiating a Joint Development Agreement, long-term lease, or deed of sale;
- The replacement of MassDOT or MBTA facilities displaced by the joint development project;
- The policy for addressing an unsolicited proposal to undertake joint development on MassDOT or MBTA land;
- The policy for addressing a proposal by an adjacent landowner to connect to a station or participate in the funding and delivery of a station;
- MassDOT or MBTA support of regulatory and funding approvals consistent with an awarded joint development project.

Substantive Guidelines: the Foundational TOD Principles

The rest of the TOD Guidelines consist of four topical sections, each addressing one of the foundational TOD principles discussed in Part II. These Guidelines embody the TOD outcomes that MassDOT and the MBTA seek to implement in their own joint development projects; to that end, they will be reflected through site-specific requirements in each Invitation to Bid and refined through the subsequent selection process, developer negotiation, and design review. MassDOT and the MBTA will also advance these Guidelines, as TOD stakeholders and advocates, when they participate in station area planning and development reviews beyond their own property.

These substantive Guidelines are meant to be flexible and illustrative, so that they can be tailored to local conditions. MassDOT and the MBTA will work cooperatively with local jurisdictions to ensure that the Guidelines are applied flexibly to account for local needs, conditions, and policy priorities.

Each of the four topical sections concludes with three Greater Boston examples in that illustrate the Guidelines provisions in question and their intent. These projects were chosen to represent all parts of the region, all types of stations, and all modes of transit. Some are joint development projects; others are TOD projects in which MassDOT or the MBTA are stakeholders but not direct participants. The examples are listed in the text and illustrated in Appendix D.

A. Density and Mixed Uses

Guidelines. To promote dense, mixed-use development around transit, MassDOT and the MBTA will pursue the following TOD Guidelines. As stated previously, these standards are meant to be illustrative

rather than prescriptive and do not imply any zoning or other land use regulatory authority on the part of MassDOT or the MBTA. That said, to the degree appropriate, MassDOT and the MBTA are prepared to work with individual municipalities to encourage and accommodate TOD.

1. **Reasonable density.** MassDOT and the MBTA support station area development at the approximate levels of density shown below. These levels (which refer to current and future TOD as opposed to the entire half-mile station area) are expressed as ranges; they vary across the community contexts described by the Station Typology. From a TOD perspective, the most useful measures of density are the general ones shown in Table 1:

Table 1: Illustrative Density Guidelines by Station Typology

Station Typology Category ¹⁹	FAR Range	Intensity Range
Metro Core, Seaport/Airport,	5.0 and above	120 - 400
Transformational Subway	2.5 and above	120 - 400
Transit Neighborhood	1.5 – 5.0	75 - 150
Trolley Suburb	1.0 – 3.0	50 - 100
Urban Gateway	1.5 – 5.0	75 - 150
Town & Village	1.0 – 3.0	50 - 100
Suburban Transformation	1.0 – 3.0	50 - 100

- Floor Area Ratio (FAR) as a measure of overall built density, irrespective of height, lot coverage, or other dimensional components;
 - MAPC’s metric of Normalized Intensity—total population plus jobs per acre of developable land—as a measure of overall activity.²⁰
2. **Highest density at station.** In most station areas, it is appropriate to locate the highest density in closest proximity to the station itself. The high ends of the density ranges in Table 1 should be understood as most compatible with the quarter-mile core surrounding the station. Where physically and contextually possible, MassDOT and the MBTA will support locating the largest buildings and most intense activity levels in immediate proximity to the station.
 3. **Appropriate mix of uses.** Particularly within a station area’s quarter-mile core, MassDOT and the MBTA support a pattern of land use compatible with the principles of transit-oriented development. This means that as-of-right mixed use development is strongly preferred, while single-use, low-density, automobile-dependent uses are discouraged.

To the degree appropriate within the jurisdiction, MassDOT and the MBTA will provide land use guidance in their joint development Invitations to Bid in accordance with Table 2. They will encourage similar land use outcomes in other station area development.²¹
 4. **TOD Zoning Tools.** MassDOT and the MBTA, by commenting on proposed rezoning actions or otherwise participating in zoning discussions, will encourage cities and towns to adopt Chapter

¹⁹ As explained previously, Commerce Park and Undeveloped stations are not included.

²⁰ Ibid.

²¹ These land use preferences generally do not apply to Commerce Park stations.

40R zoning, TOD overlay districts, and other zoning tools that allow TOD density levels and mixed-use development in station areas.

Table 2: Preferred, Conditional, and Discouraged Uses in TOD Settings

Preferred Uses	Conditional Uses	Discouraged Uses
<ul style="list-style-type: none"> • Mixed-use development, whether horizontal or vertical * • Multi-family housing • Offices • Retail, as part of a mixed-use development or attached block • Civic and cultural facilities • Schools and libraries • Hotels • Light industry • Child care centers • Live-work units • Community meeting facilities • Cinemas as part of a mixed-use development • Public open space and private open space to which the public is generally admitted • Storage, pickup, and drop-off of shared-use automobiles 	<ul style="list-style-type: none"> • Hospitals • Laboratory or research facilities • Lower-density housing * • Retail as a single use in a detached structure • Cinemas as a single use in a detached structure • New stand-alone commercial parking structures • Automotive sales, rental, or storage • Automotive service stations 	<ul style="list-style-type: none"> • Strip commercial development * • Drive-through facilities • Industrial, warehousing, or distribution activities • Automotive repair, salvage, or junkyard • Sale, rental, or repair of industrial or construction equipment • Self- or mini-storage (new construction) • Very low-density housing * <p>* See definition in Appendix C.</p>

Examples. Dozens of projects and places in this region could be used to demonstrate the importance of dense, mixed-use development as a foundational component of TOD. The following are three examples:²²

- The revitalization of historic Downtown Haverhill. This multi-project plan, anchored by the commuter rail station, exemplifies adaptive reuse and infill in Gateway City station districts. Similar efforts have been undertaken in Brockton, Attleboro, Beverly, and other historic rail downtowns.
- Assembly Row in Somerville, one of the largest TOD projects in the northeast and a case study example of joint development and value capture. The project was enabled by the location of an Orange Line infill station.
- The South Boston Waterfront, largest planned waterfront TOD district in the United States. Organized around the Silver Line and constrained by a parking freeze, the district presents a planned mix of urban uses.

²² See further detail and graphic material in Appendix D.

B. Equitable Development

Guidelines. To promote equitable development, MassDOT and the MBTA will pursue the following TOD Guidelines:

1. **Affordable and workforce housing.** In joint development projects on MassDOT and MBTA property with at least 15 residential units, the Invitation to Bid will include a site-specific requirement for affordable or workforce housing. In general, such projects will be required to commit at least 20% of their units as affordable housing, workforce housing, or a combination of the two. As defined in Appendix C of this document, *affordable housing* serves households earning up to 60% of the applicable Area Median Income (AMI), while *workforce housing* serves households earning up to 100% of AMI. In either case, a lower maximum percentage of AMI may be applied in a particular project.

MassDOT and the MBTA, as applicable, will establish the affordable and/or workforce housing requirement on a project-by-project basis, subject to the following:

- If MassDOT and the MBTA determines that a 20% affordable and/or workforce requirement is not financially feasible due to market conditions, site conditions, or other issues, they may establish a lower requirement of not less than 10% of the units be affordable at or below 80% AMI.
- If a local inclusionary zoning provision requires a specific percentage of affordable or workforce units, or a specific percentage of AMI to be applied to such units, those local requirements may be adopted by MassDOT and the MBTA for the project in question.

In addition to requiring affordable or workforce housing in their joint development projects, as described in the preceding paragraphs, MassDOT and the MBTA, in their role as stakeholders, will encourage the inclusion of such housing in other TOD projects.

2. **Employment in TOD.** MassDOT and the MBTA support the development of facilities employing large numbers of workers at locations near transit stations, and will collaborate with jurisdictions promoting such development.²³
3. **Last-mile work connections.** MassDOT and the MBTA will work with employer shuttle providers to facilitate efficient station connections, and will advocate for employment districts and their street systems to safely accommodate both MBTA and shuttle vehicles.
4. **Targeting affordable housing resources.** MassDOT and the MBTA will support the application of local, state, and federal mixed-income housing programs in joint development and other high-priority TOD projects, where appropriate, especially in weaker or middle-market locations. These include the full array of resources available for land assembly, acquisition and preservation of existing affordable housing, and new housing production.
5. **Targeting economic development resources.** MassDOT and the MBTA will support the concerted application of economic development and workforce development programs in joint development and other high-priority TOD projects.
6. **Community services and amenities.** Wherever appropriate, the MassDOT and the MBTA, as applicable, will require the inclusion of retail, community services, and high-quality public

²³ This Guideline and the next are potentially applicable to Commerce Park stations (which include office and industrial parks, institutional campuses, and entertainment campuses).

amenities as part of their joint development projects. They will encourage similar provisions in other TOD projects,

7. For-profit and not-for-profit developers. In their respective joint development projects, MassDOT and the MBTA will encourage the participation of not-for-profit developers, including Community Development Corporations, to help achieve the results outlined above.
8. Sustainable design. Where applicable, MassDOT or the MBTA will strongly encourage joint development projects on their property to meet the requirements for certification at a level of at least LEED Silver (or its equivalent in a comparable rating system). In coastal locations subject to storm surge or sea level rise, joint development projects will be required to demonstrate appropriate water-resilient sustainable design measures, and to be designed so as to not unduly increase the risk of storm surge or sea level damage to MassDOT or MBTA facilities.

Examples. Three local examples of equitable TOD have been chosen, reflecting housing affordability, access to employment, community equity, or a combination of these attributes:²⁴

- The revitalization of Boston’s Dudley Square, with particular focus on two projects: Boston Public School Headquarters, a major employment center adjoining the Dudley transit hub, and Bartlett Commons, a mixed-use development on former MBTA property.
- Jackson Commons, a linchpin in the economic development of the Southwest Corridor, combining jobs, affordable housing, community facilities, and CDC investment adjoining the Orange Line station.
- Ashland Rail Transit Apartments, a large rental project with 249 two-bedroom units and 20% affordability, on a former industrial site next to commuter rail station in the Town’s Rail Transit TOD District.

C. The Public Realm

Guidelines. The following guidelines that MassDOT and the MBTA will pursue are meant to promote a public realm that is supportive of TOD and should be followed only to the degree applicable and feasible. Public realm improvements should be balanced with the need for improved transit infrastructure and systems, which is the primary focus of the MassDOT and the MBTA.

These guidelines are most applicable within the quarter-mile core of rail and bus rapid transit stations, in the immediate watershed of neighborhood bus corridors, and the Station Typology categories where dense, mixed-use TOD is achievable—all categories except Commerce Park and Undeveloped. Even in those cases, pedestrian and bicycle access to the station is highly desirable.

1. Continuous pedestrian network. To the degree physically possible, the station area should provide pedestrian routes that converge at the station and are interrupted only by street crossings that are safe and appropriate for the setting. All such routes shall be ADA-compliant.
2. Sidewalk and streetscape design. Sidewalks, particularly in the station area core, should have a pedestrian clear zone at least 8-12 feet in width. Where physically possible, either of two additional zones are encouraged: an amenity and furniture zone on the curb side, or a supplemental activity zone (providing outdoor dining, retail, performance, or sitting) on the building side.

²⁴ See further detail and graphic material in Appendix D.

3. Wayfinding. Clear, legible, and easily identifiable signage is an integral component of a successful TOD district. Within the overall signage plan, wayfinding is critical—directing people arriving at the station to surrounding destinations and *vice versa*. MassDOT and the MBTA encourage local jurisdictions to install wayfinding signage systems in TOD districts; will collaborate as appropriate in such efforts; and will include way-finding signage, appropriate to the station in question, in the streetscape components of their joint development projects.
4. An active street wall. In the station area core, and particularly on streets or plazas visible from or leading to the station, the following building features are strongly encouraged:
 - a zero setback from the sidewalk;
 - active “public accommodation” uses on the ground floor;
 - permeability in the form of glazing, frequent entrances, and avoidance of blank walls.
5. A TOD-supportive street pattern. To the greatest degree possible, the station area should be characterized by a grid of small blocks (not exceeding 400 feet in length), with sidewalks as described above and safe accommodations for bicycling.
6. Station access. In planning for station improvements and joint development, the MBTA will generally seek to accommodate access in the following order of priority: pedestrians; connecting transit services (such as buses or shuttles serving a rapid transit or commuter rail station); bicyclists; taxi and ride-sharing services; and private cars (including drop-off and park-and-ride).
7. Alternative Transportation Corridors. Where an Alternative Transportation Corridor such as a rail trail or shared-use community path is present or planned in the vicinity of a station, it should be a priority to connect this corridor to the station in a safe and convenient manner, as an integral component of pedestrian and bicycle access.
8. Mobility hubs. MassDOT and the MBTA will encourage the creation, near transit stations and other appropriate locations, of mobility hubs—kiosks and similar facilities that provide way-finding and real-time information about car- and bike-sharing, bus and shuttle schedules, and other forms of “first mile/last mile” connections.
9. Infrastructure funding. In joint development and other high-priority station area development projects, MassDOT and the MBTA will support the pursuit of public funding and financing programs to facilitate implementation of a TOD-supportive public realm. These may include, without limitation, the MassWorks state grant program; the Commonwealth’s value capture financing programs (District Infrastructure Finance, Infrastructure Improvement Incentive, and Local Infrastructure Development Program); and the federal “TIFIA” and “RRIF” programs as applicable to TOD.

Examples. Three projects in varying contexts have been chosen to exemplify the design and implementation of a TOD-supportive public realm:²⁵

- Brookline Village, served by two Green Line branches and multiple bus routes, where streetscape investments and a major TOD project expanded and integrate the pedestrian network radiating from Brookline Village station.

²⁵ See further detail and graphic material in Appendix D.

- Wonderland, where a transformative joint development project sponsored by the MBTA and the City of Revere is organized around a pedestrian bridge and plaza connecting the station to the development buildings and the regional magnet of Revere Beach and its parkland.
- Worcester’s City Square, where the demolition and redevelopment of a failed shopping mall and the redesign of the public realm enabled a revitalized downtown to be connected to Union Station, a commuter rail, Amtrak, and bus hub.

D. A TOD Approach to Parking

Guidelines. To promote a TOD-supportive approach to parking, MassDOT and the MBTA will pursue the TOD Guidelines described below.

1. **Park-and-ride location.** Significant new park-and-ride capacity will be located only at stations at or near the outer ends of transit and rail corridors. Where possible, park-and-ride will be located at Suburban Transformation, Commerce Park, or Undeveloped stations.
2. **Park-and-ride replacement:** In making surface park-and-ride lots available for joint development, the MBTA will make a case-by-case assessment of whether to replace the park-and-ride capacity at 100%. The all-in net present value assessment will take into account utilization of the existing surface lot; ridership and revenue generated by the park-and-ride lot itself and associated passenger fares; ridership and revenue to be generated by the proposed joint development; and the net real estate proceeds to be generated by the joint development project. The MBTA may opt for partial replacement (a ratio of less than 1:1) if equivalent or greater ridership and revenue can be attracted with fewer park-and-ride spaces. Conversely, if park-and-ride demand at a particular station is expected to increase, the MBTA may opt for replacement at a greater than 1:1 ratio
3. **Parking for TOD.** MassDOT and the MBTA support reduced parking ratios for TOD, particularly within the station area core. In most cases, the *maximum* ratio should fall within these illustrative ranges

Residential	.75 - 1.5 spaces per unit
Office	1.0 – 2.5 spaces per 1,000 square feet
Retail	1.5 – 3.0 per 1,000 square feet
Hotel	0.5 – 1.0 spaces per guest room

Within these ranges, the appropriate ratio for a specific project will generally depend on two factors:

- the station typology, which takes into account the level and type of transit service, the intensity and mix of uses, and the existing or planned public realm;
- the on-foot distance between the development project and the station.

For example, a project within close walking distance of a Metro Core, Seaport, or Transformational Subway station would be assigned parking ratios at or near the low end of the ranges listed above; a project a half-mile walk from a similar station would be assigned somewhat higher ratios. Projects near Transit Neighborhood, Trolley Suburb, Urban Gateway, and Town & Village stations would fall in the intermediate range. Projects near Commerce Park and Undeveloped stations would fall at the high end of the range.

Based on these standards and local parking utilization data when available, MassDOT or the MBTA, as applicable, will designate a set of maximum parking ratios for each joint development project. They will coordinate with the city or town in question to ensure that the parking standards described here are applied flexibly in response to local needs, conditions and policy priorities.²⁶ Where local requirements are inconsistent with standards, MassDOT or the MBTA may work with local authorities having jurisdiction to develop appropriate parking solutions to allow for TOD.

4. Shared parking. MassDOT and the MBTA will encourage shared parking among TOD uses, and between park-and-ride and TOD uses where feasible.
5. Multi-modal parking. MassDOT and the MBTA will require in their respective joint development projects, and encourage in other TOD:
 - provision of bicycle parking facilities of appropriate quantity and design; in joint development projects, these will include, as applicable, both outdoor and secure, indoor spaces for both residential and non-residential uses;
 - provision of spaces for car-sharing, bike-sharing, and electric vehicle charging.
6. Garage design. Whether for park-and-ride, TOD, or a combination of the two, MassDOT and the MBTA supports the location of garages so as to minimize any spatial or visual conflict with TOD. Garages should be sited so as not to preclude development of a station's most desirable parcels. Where possible, garages fronting on major streets should be "wrapped" by multi-story development; at minimum, such frontages should include retail or similar uses at street level.
7. Surface parking location and design. Surface lots should be landscaped, and should be screened from pedestrian areas by plantings. Surface parking associated with a building should not be located between the building and its front sidewalk.

Examples. Three projects have been chosen to exemplify an appropriate TOD approach to parking:²⁷

- The Beverly Depot garage, where the MBTA designed a park-and-ride garage to accommodate a joint development parcel fronting on the street, sharing the garage, and "wrapping" its street frontage.
- The MBTA's North Quincy joint development project, where the replacement of a large surface park-and-ride lot in a garage freed up a 5.8-acre site for mixed-use TOD.
- Somerville's TOD zoning for Union Square and Boynton Yards; adopted in anticipation of the Green Line Extension, the TOD zoning reflects best practices with respect to low parking ratios, shared parking, and design standards for parking facilities.

²⁶ These illustrative standards will be reviewed and updated every five years to account for changes in vehicle technology and market trends.

²⁷ See further detail and graphic material in Appendix D.

APPENDICES

- A. The MAPC Station Typology
- B. Joint Development Procedures
- C. Definitions
- D. Projects Illustrating Foundational TOD Principles

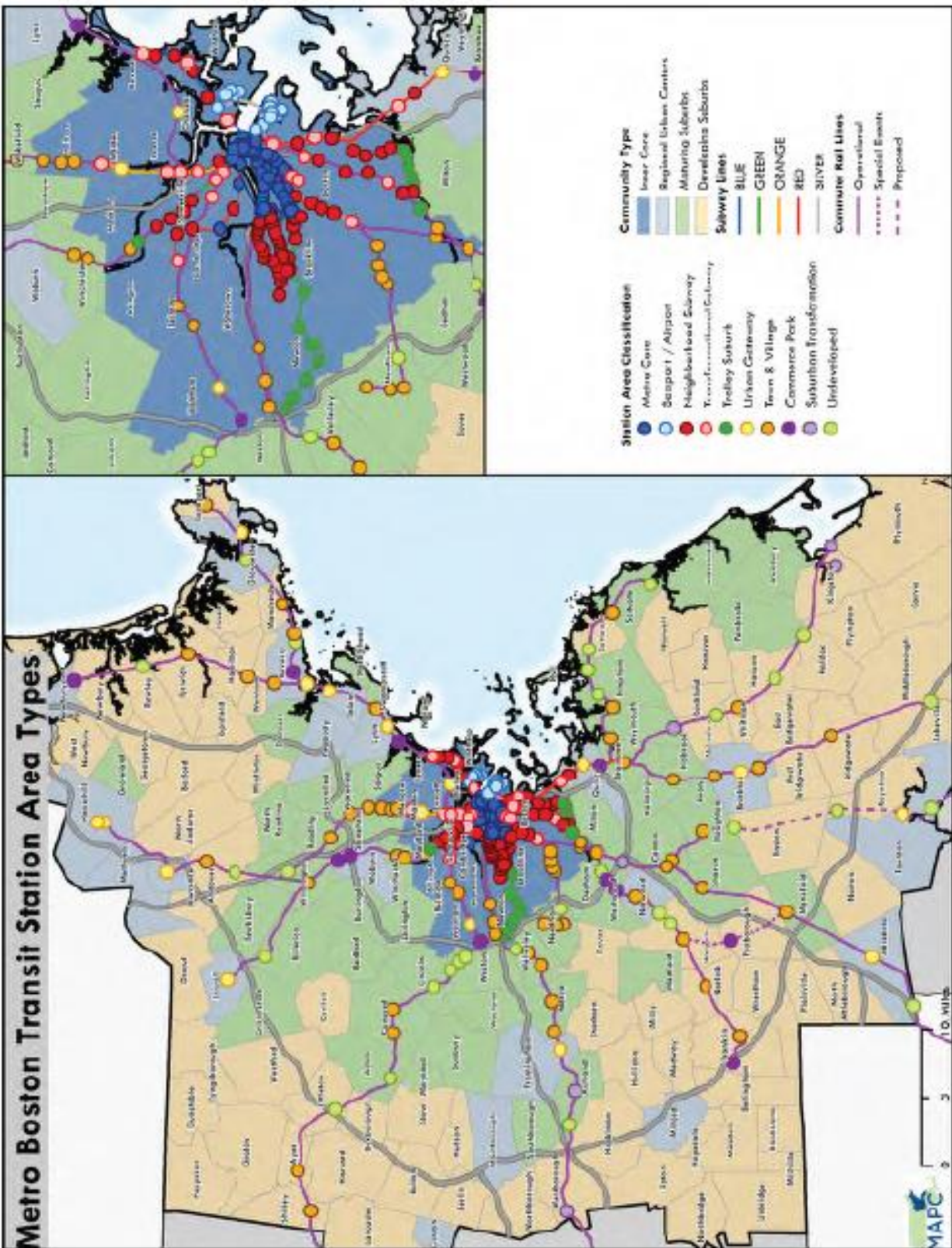
APPENDIX A: THE MAPC STATION TYPOLOGY

Table 3: The Station Typology

Category	Definition
Metro Core	Subway, trolley, and Silver Line station areas in or near Downtown Boston and adjacent high density employment and institutional centers. These stations have the greatest number of boardings and the highest intensity of existing and planned development.
Seaport/Airport	Areas around Silver Line and Blue Line stations in the Seaport District and at Logan Airport, with underutilized land and the capacity for transformative redevelopment.
Transformational Subway	Subway station areas with potential for transformative change through district-scale land development projects involving redevelopment of multiple city blocks and creation of new street networks; some stations have specific development projects already proposed, while others demonstrate similar attributes but have no current development proposals.
Transit Neighborhood ²⁸	Subway and trolley station areas, and primary bus corridors, in predominately residential, moderate-density, transit neighborhoods throughout the Inner Core; new development in these station areas is likely to occur through parcel-by-parcel infill and redevelopment.
Trolley Suburb	Trolley station areas, mostly in Newton and Milton, that are considerably less dense than other subway station areas, with higher income, higher vehicle miles traveled per household, and lower transit commute mode share than Transit Neighborhood stations.
Urban Gateway	Station areas in or adjacent to the downtown of Regional Urban Centers, with a moderate-intensity balance of residential and commercial development and a large population of low income residents, served by commuter rail or subway and often functioning as a hub for local MBTA or regional transit authority bus service.
Town & Village	Commuter rail station areas in mixed-use town centers, business districts, or villages, ranging from outlying Boston neighborhoods to suburban downtowns and small village centers.
Suburban Transformation	Suburban commuter rail station areas likely to experience transformative TOD through a major planned development or redevelopment.
Commerce Park	Commuter rail station areas in existing office or industrial parks or adjacent to major institutional employers outside Boston; many feature large park & ride facilities.
Undeveloped	Isolated commuter rail stations in low-intensity, high-income suburban areas with very few nearby destinations, incomplete pedestrian infrastructure, and large areas of vacant undeveloped land.

²⁸ In MAPC's typology, this category is called "Neighborhood Subway"; "Transit Neighborhood" is used to extend the concept to neighborhood bus corridors as well. The "Inner Core" referenced here and on the following page is a 16-municipality regional core area defined by MAPC; it includes Boston, Cambridge, Somerville, Brookline, Chelsea, Revere, Winthrop, Arlington, Belmont, Medford, Malden, Melrose, Everett, Newton, Watertown, and Waltham.

Figure 1: Station Typology Map (MAPC)



The ten categories can be combined into four thematic groupings:

- **Metro Core, Seaport/Airport, and Transformational Subway.** These stations are all in the region's Inner Core and either support, or are expected to support, the highest intensity of development and the most robust mix of residential, employment, institutional, and recreational activities.
- **Transit Neighborhood and Trolley Suburb.** These categories consist of neighborhood stations in the Inner Core. MAPC's "Neighborhood Subway" category includes both subway and light rail stations. Because the MBTA intends these TOD Guidelines to address key neighborhood bus corridors as well, this category is renamed "Transit Neighborhood". The Trolley Suburb category consists of light rail stations in Newton and Milton. While differing in density and income level, both of these categories provide infill TOD opportunities in a fine-grained neighborhood setting.
- **Urban Gateway and Town & Village.** These categories encompass mixed-use city, town, and village centers, served by commuter rail and in a few cases by rapid transit. The two categories differ in scale and prominence, with Urban Gateway stations generally located in larger regional downtowns. Several are in Commonwealth-designated Gateway Cities at the outer ends of commuter rail lines. The mixed-use centers in both categories provide extensive opportunities for infill development and adaptive reuse.
- **Suburban Transformation, Commerce Park, and Undeveloped.** These station categories are located on the commuter rail system, and they share the challenge of adapting TOD principles, as applicable, in settings without a mixed-use activity base or traditional TOD street grid. Suburban Transformation stations have comprehensive, mixed-use development plans that envision a role for transit. Commerce Park stations include office and industrial parks, college campuses, and major entertainment centers—single- or limited-use settings where the key activity generators are physically spread out and may be distant from the stations themselves. Undeveloped station areas are in rural or low-density suburban settings, where major trip generators are not within walking distance. All three of these station types require "first-mile/last-mile" connections if they are to utilize rail transit in a way that helps contain sprawl and reduce vehicle miles.

APPENDIX B: MASSDOT/MBTA JOINT DEVELOPMENT PROCEDURES

These MassDOT/MBTA Joint Development Procedures are designed to ensure a joint development solicitation and negotiation process that is fair, transparent, timely, and accessible to a broad range of developers; to optimize the value of the transaction for MassDOT and the MBTA; and to promote projects that reflect the MassDOT/MBTA TOD Guidelines.

a. Definitions:

MBTA:	The Massachusetts Bay Transportation Authority.
MassDOT:	The Massachusetts Department of Transportation.
Joint Development Project:	A project in proximity to an MBTA station that is undertaken by a developer: on MBTA or MassDOT land or air rights; within MBTA stations; or through some other form of real estate transaction to which the MBTA or MassDOT is a party (including but not limited to a physical connection with a station).
Invitation to Bid (ITB):	The form of open, competitive developer solicitation document issued by the MBTA or MassDOT to solicit proposals for joint development projects. As used in these Guidelines, the term ITB is understood to include other forms of developer solicitation, such as a Request for Qualifications (RFQ), a Request for Proposals (RFP), or a combined Request for Qualifications and Proposals.
The Issuer:	Whichever of the MBTA or MassDOT is issuing, or has issued, a joint development Invitation to Bid.

- b. Except as indicated herein, MassDOT and the MBTA, as the case may be, will undertake joint development projects by offering properties for development through a competitive solicitation process. MassDOT and the MBTA, as applicable (“the Issuer”) will determine if and when it is advantageous to offer a property for development based on a market analysis and on the Issuer’s conclusion that the land, air rights, or premises in question are not needed for transportation operations and that the development contemplated will not unduly interfere with such operations. Advance planning and coordination across agencies may help to determine property is not needed over the long-term for transportation system infrastructure or operations; or advance planning and asset management may determine there is an opportunity to greatly improve an existing transportation asset through a Joint Development Project without unduly interfering with the long-term viability of the asset.
- c. The solicitation process will be based on an Invitation to Bid (“ITB”) or a similar form of developer solicitation document. The Issuer may delegate to its real estate advisory consultant the work of preparing, issuing, and managing the ITB; evaluating proposals; and negotiating the Joint Development Agreement; such delegation will be under the supervision of the Issuer’s Real Estate Department.

- d. The ITB will set forth the process for evaluating proposals and selecting a developer. The ITB will state that its issuance does not obligate the Issuer to select a developer, and that the Issuer may, at its sole discretion, cancel the ITB or reject any and all proposals.
- e. The ITB shall provide sufficient information and guidance to convey the Issuer's development intent, while encouraging, to the degree appropriate for the project in question, flexible and creative proposals by respondents. The ITB shall specify the type and level of information required to demonstrate the technical merit of the proposal and the financial capacity of the proponent.
- f. MassDOT is required to award competitive real property solicitations to the highest responsible bidder.²⁹ The MBTA is required by law to award competitive developer solicitations to the highest responsible bidder, unless the public interest requires otherwise.³⁰ The ITB will specify requirements or conditions that respondents should take into account in preparing their bids. Depending on the instructions provided in the ITB, bids may include lump sum cash payments, on-going payment streams, or, if applicable, in-kind replacement or improvement of MBTA facilities or specific commitments to operate and maintain such facilities. The all-in net present value of a responsible bid shall be at least equal to the current appraised fair market value of the property.
- g. The Issuer's Real Estate Department will coordinate with other departments and offices, including but not limited to Legal Counsel, Procurement, Finance, Operations, Safety, MBTA Transit Police, MBTA Design and Construction, MBTA System-wide Accessibility, and MBTA Engineering and Maintenance, to ensure that the availability of the property, the contemplated uses and site plan, the content of the ITB, the preservation or replacement of any operating facilities, and the constructability of the proposed development are properly evaluated. Such coordination will commence during the evaluation of a property for potential joint development and will continue through the ITB, proposal evaluation, and preparation of the applicable agreements.
- h. The Issuer will coordinate with the city or town in which the project is located through all stages of the joint development process, and will seek input from community stakeholders at the city or town's direction. The Issuer will consult with the applicable Regional Planning Agency as appropriate.
- i. The Issuer will incorporate into the ITB any applicable provisions enumerated in Part III, TOD Guidelines, with respect to subsections A (Density and Use), B (Equitable Development), C (Public Realm), and D (Parking). Such provisions will be tailored to the project in question; the Issuer will coordinate with the city or town in question to ensure that these provisions are applied flexibly in response to local needs, conditions, and policy priorities
- j. Whenever feasible and optimal, it is the policy of MassDOT and the MBTA to retain fee ownership of joint development parcels and convey their development rights through long-term lease rather than sale. It is understood that a particular development project may require the outright sale of a parcel, and the Issuer will consider such exceptions on a case-by-case basis, based on documentary evidence that the project cannot feasibly be financed through a long-term

²⁹ Chapter 6C, Section 20 of the General Laws (the MassDOT Enabling Act).

³⁰ Chapter 161A of the General Laws, the MBTA Enabling Act, states, in the case of real property sales: the highest bidder subject to any restrictions, covenants, or conditions the authority shall find that sound reasons in the public interest require; and in the case of leases: the highest responsible and eligible bidder therefor unless the authority shall find that sound reasons in the public interest require otherwise.

lease and that a sale is advantageous to the Issuer. In all cases, the Issuer will reserve such rights as it deems necessary for the operation and maintenance of its facilities, and such reservations will be clearly stated in the deed or ground lease.

- k. If at the conclusion of its evaluation of proposals the Issuer determines that there is a highest responsible bid which satisfies the selection criteria, that respondent shall receive the Preliminary Developer Designation, following which the Issuer and the respondent will enter into an exclusive negotiation period for the purpose of concluding either: (i) a Joint Development Agreement (“JDA”) or (ii) the long-term ground lease or deed of sale, depending on which method was specified in the ITB. A JDA, where used, governs the legal and business relationship between the Issuer and the designated developer until the closing, at which time the JDA is superseded by the long-term ground lease or deed of sale conveying the development rights. The JDA will set forth all of the conditions precedent to the closing, including the process of design and constructability reviews by MassDOT and by the MBTA if applicable. If the Issuer and the developer are unable to conclude a Joint Development Agreement, long-term ground lease, or deed of sale satisfactory to the Issuer, the Issuer may at its option enter negotiations with the next ranked respondent or cancel the ITB. Under state law, Massachusetts Environmental Policy Act (MEPA) review, where applicable, must be completed and certified by the Secretary of Energy of Environmental Affairs before a JDA or other final land disposition agreement may be executed.
- l. In the event MassDOT or the MBTA receives an unsolicited proposal for joint development on its property, it shall determine: (i) whether the property is available for development under the criteria of paragraph [b] above; (ii) whether it is advantageous to MassDOT or the MBTA, as the case may be, to offer it for development at the current time; (iii) whether the proposed transaction will return fair market value; (iv) whether the proposal contains sufficient information to reasonably evaluate its technical merit and the financial capacity of the proposer; and if so, (v) whether there is sufficient merit and capacity to entertain the proposal. If MassDOT’s or the MBTA’s determination, as applicable, on any of the foregoing questions is negative, it shall return the proposal and take no further action. If MassDOT’s or the MBTA’s determination is affirmative, it may consider the proposal by making public notice that it has received an unsolicited proposal for the property in question and soliciting alternative proposals. Such solicitation shall be in the form of an ITB consistent, to the degree applicable in the particular circumstance, with paragraphs [d] and [e] above.
- m. The MBTA anticipates that owners of property adjacent to MBTA facilities may from time to time request to establish a physical connection to a station or to participate in the design, funding, improvement, construction, or operation and maintenance of a station. Such requests will be evaluated and disposed of consistent with applicable provisions of the MBTA Enabling Act (Chapter 161A of the General Laws) and any other applicable provision of law. The MBTA shall be under no obligation to undertake any such transaction, but if it determines that it is advantageous to do so may enter into a Joint Development Agreement, Memorandum of Understanding, or other form of agreement allowed by applicable law. Under any such agreement, the activity of the adjacent owner with respect to design, construction, or operation of MBTA facilities shall be under the supervision, and shall comply with all applicable standards, of the MBTA. The MBTA Legal Department shall determine whether any aspects of the transaction in question are subject to competitive bidding.
- n. MassDOT and the MBTA will support applicable local approvals, MEPA review, and other regulatory approvals associated with their respective joint development projects. Except as

indicated herein or specifically stated in the ITB, the selected developer will be responsible for securing all regulatory approvals.

- o. MassDOT and the MBTA will at their discretion support applications for federal, state, or local grants or financing assistance associated with their respective joint development projects. If a proposal is dependent on such assistance, the Issuer may review the proposal with the relevant government agency in order to assess the likelihood of such assistance being obtained.
- p. The MBTA will have lead responsibility for securing any regulatory approval or grant assistance from the Federal Transit Administration (FTA) or Federal Railroad Administration (FRA), and any communication with the FTA or FRA with respect to such matters will be initiated and directed by the MBTA. MassDOT will have led responsibility for securing any regulatory approval or grant assistance from the United States Department of Transportation (USDOT), and any communication with USDOT with respect to such matters will be initiated and directed by MassDOT.
- q. In general, a joint development project that displaces existing MBTA station access facilities—whether pedestrian, intermodal, or park-and-ride—will replace those facilities as part of the project. At the MBTA’s discretion, the Joint Development Agreement may provide for the replacement to be implemented by the developer or by the MBTA using joint development proceeds.

APPENDIX C: DEFINITIONS

Affordable Housing and Workforce Housing. For-sale or rental housing that is affordable to households earning up to a specific percentage of the applicable Area Median Income (AMI), as determined by the US Department of Housing and Urban Development. For purposes of these TOD Guidelines, *Affordable Housing* is defined as serving households earning up to 60% of AMI. *Workforce Housing* is defined as serving households earning up to 100% of AMI. In either case, a lower percentage of AMI may be applied on a project-by-project basis.

Alternative Transportation Corridor. A dedicated or semi-dedicated corridor for pedestrian, bicycle, and handicap accessible travel; such corridors include, but are not limited to, rail trails and community paths.

Area Median Income (AMI). The median household income estimated by the Department of Housing and Urban Development (HUD) for each US metropolitan and non-metropolitan area, as a metric of eligibility for participation in various affordable housing programs. HUD estimates the median family income for an area in the current year and adjusts that amount for different family sizes so that family incomes may be expressed as a percentage of the area median income.

Community Development Corporation (CDC). A non-profit corporation, usually based in a particular neighborhood or jurisdiction, that participates in real estate development projects as well as other community revitalization activities. CDCs typically have community residents and stakeholders on their governing boards. The term is used broadly in this document to include organizations with CDC in their names as well as similar organizations.

Complete streets. Public streets designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

Core, or Station Area Core. The area around a rapid transit or commuter rail station defined by a quarter-mile radius. The core is a subset of the half-mile walkshed (see definition) of such stations and is the area where certain aspects of the TOD Guidelines are identified in the text of this document as being of particular relevance or applicability.

District Infrastructure Finance (DIF). The Massachusetts version of traditional municipal tax increment financing, using the local property tax (Chapter 40Q of the General Laws). A municipality may place up to 25% of its land area in a DIF district; may choose the percentage (up to 100%) of the district's incremental revenues to capture and dedicate to the DIF bond; and may maintain the dedicated revenue stream for a term of up to 30 years from a projected stabilization date. (See also Value Capture.)

Employment TOD. Transit-oriented development that includes one or more large-scale employment destinations. As used in these Guidelines, Employment TOD may consist of commercial, institutional, or industrial uses. Particularly in the case of industrial uses, Employment TOD may lack the traditional TOD mix of uses.

Equitable TOD (E-TOD). As used in these Guidelines, Equitable TOD is transit-oriented development characterized by housing and transportation affordability (see definition), enhanced transit access to jobs, and equitable investment in the community.

First mile/last mile connection. A link connecting a transit station to a passenger origin or destination lying outside of normal walking distance. First-mile/last-mile connections may consist of employer

shuttles; district collector/shuttles run by public agencies, residential developments, or Transportation Management Associations; taxi or ride-share services; and shared cars or bicycles.

Gateway Cities. The Commonwealth's older industrial cities, defined in Chapter 23A of the General Laws as having a population of 35,000 to 250,000 and income and educational attainment levels below the statewide average. Gateway Cities are eligible for, or have priority status in, several state economic and community development programs. There are currently 26 Gateway Cities, 16 of which are located in the MBTA service area or in other regional transit authority districts but with MBTA commuter rail stations.

Greater Boston. The 164-municipality metropolitan region generally used by the Metropolitan Area Planning Council and the Central Transportation Planning Staff for planning, modeling, and projection purposes. This region contains the entire MBTA rapid transit system and nearly all of its commuter rail stations. As used in this document, there is no technical or legal significance to the designation.

Housing + Transportation (H+T) Affordability Index. An affordability index developed by the Center for Neighborhood Technology that takes into account the combined cost of housing and daily commuting, rather than housing alone. In the H+T index, the benchmark for affordability is a combined housing and transportation cost representing not more than 45% of household income. This is in contrast to the traditional housing affordability of 30% of household income.

Inclusionary zoning. A provision in a local zoning ordinance or similar land use regulatory code that requires a specific percentage of affordable housing units for residential or mixed-use projects meeting certain size or location thresholds.

Infrastructure Investment Incentive Program (I-Cubed). A form of state-level tax increment financing, in the form of income and sales taxes to be generated by industrial or commercial development undertaken as a result of an infrastructure investment (Chapter 293 of the Acts of 2006 and Chapter 128 of the Acts of 2008). Bonds are issued by the Massachusetts Development Finance Agency and cannot be undertaken without the initiative of one of more private developers. The projected incremental revenues must be shown, through an independent third-party analysis, to be net new to Massachusetts. (See also Value Capture.)

Invitation to Bid (ITB). The form of open, competitive developer solicitation document used by the MBTA to solicit proposals for joint development parcels. As used in these Guidelines, the term ITB is understood to include other forms of developer solicitation, such as a Request for Qualifications (RFQ), a Request for Proposals (RFP), or a combined Request for Qualifications and Proposals.

Joint development. As used in these Guidelines, a subset of transit-oriented development that is built by a developer on MBTA or MassDOT property, or that is connected to a station through some other form of real estate transaction to which the MBTA or MassDOT is a party (including but not limited to a physical connection with a station). (The Federal Transit Administration, for its purposes, uses a different definition, established in its 2016 Joint Development Guidance: A public transportation project that integrally relates to, and often co-locates with commercial, residential, mixed-use, or other non-transit development. Joint development may include partnerships for public or private development associated with any mode of transit system that is being improved through new construction, renovation, or extension. Joint development may also include intermodal facilities, intercity bus and rail facilities, transit malls, or historic transportation facilities.)

Joint Development Agreement (JDA). An agreement between a transit agency sponsoring a joint development project (see definition) and its selected developer, establishing the terms of the transaction

and governing the relationship between the parties from the time of execution until the closing of the long-term lease or sale that conveys the development rights.

Local Infrastructure Development Program (LIDP). A special assessment district program that enables a municipality to finance local economic development infrastructure through assessments on property within a designated district. The district cannot be approved and implemented without 100% consent by all property owners within the district. The special assessments are collected like property taxes for a term of up to 25 years, and the tax-exempt infrastructure bonds are issued by the Massachusetts Development Finance Agency. (See also Value Capture.)

Lower-density housing. Residential development of at least one acre containing fewer than 15 dwelling units per acre and more than four units per acre.

Metropolitan Area Planning Council MAPC. The regional planning agency for a 101-municipality Greater Boston district that substantially overlaps the MBTA service area.

Mixed-use development. Development within a single project, or within a cluster of projects in a single station area, that includes different, complementary uses (both residential and non-residential) and provides for a variety of activities throughout the day. Mixed-use development may be horizontal (adjoining uses in separate buildings) or vertical (different uses within the same building).

Mobility hub. A transit station where several modes of passenger transportation interface, often with the aid of real-time information technology. The connecting modes may include rapid transit and “feeder” transit services as well as the various forms of first-mile/last-mile connections (see definition). As used in these Guidelines, mobility hubs are often, but not necessarily, associated with substantial transit-oriented development.

Park-and-ride replacement. The consolidation of surface park-and-ride spaces into a garage facility, in order to free up land for joint development. Park-and-ride replacement may be on a one-for-one basis, or on a higher or lower percentage basis determined case-by-case.

Parking ratio. A ratio of parking spaces per unit of development specified in zoning or other development regulatory codes. Parking ratios are typically stated in terms of a number of spaces per unit of residential development, or per square footage of non-residential development. A given zoning ordinance may specify minimum parking ratios, maximum parking ratios, or both.

Public realm. The composition of outdoor public places in a station area (or other district), including streets, sidewalks, trails, plazas, parks, station grounds, and the amenities located therein. The public realm consists of areas owned by public agencies, or owned by private developers but generally open to the public and connected to public sidewalks.

Shared parking. Parking that is utilized by two or more different uses characterized by distinct peak parking demand hours. Shared parking may occur within a private development or a public parking facility, and may involve commuter park-and-ride as well as development-related parking.

Special assessment district. A category of district value capture in which properties within the designated infrastructure district are assessed an additional tax or fee. Special assessment districts stand in contrast to tax increment districts, in which the captured revenue is a portion of the tax that each property would pay anyway.

Station area. A rapid transit station, commuter rail station, or high-frequency bus stop and its surroundings. Depending on the context, the term “station area” may refer to the station’s walkshed or zone of influence (see definitions).

Station area core. A subset of the station area that includes a rapid transit or commuter rail station and the streets, sidewalks, public areas, and buildings in closest proximity to it. In these Guidelines, the station area core consists, at most, of the quarter-mile radius around the station entrance(s).

Station Typology. A framework for planning transit-oriented development within a given corridor or system in which stations are grouped into several “TOD place types”. These place types generally reflect a station area’s density and mix of land uses, location in the metropolitan geography, and function in the transit network. Typology categories often reflect aspirational as well as existing conditions, based on long-term plans by the municipality or regional planning agency. These Guidelines use a 10-category station typology previously developed by the Metropolitan Area Planning Council (see definition).

Streetwall. A segment of a street in which development is built with zero or minimal front lot-line setbacks and the building façades are characterized by frequent entrances and substantial glazing.

Strip commercial development. Development in excess of 25,000 square feet consisting entirely or almost entirely of retail or offices, arranged in detached one- or two-story structures with surface parking between the street and the front entrance to the businesses.

Tax increment financing. A form of value capture in which a district is drawn around a public investment and the resulting increase in tax revenues within the district is dedicated for a period of years to the financing of the investment. Typically, the revenue yield within the district in “year zero” is defined as the baseline and continues to flow to the general fund of the taxing jurisdiction(s), while some or all of the revenue increment is set aside for either pay-as-you-go or debt financing of the infrastructure project.

Third places. Locations that are neither residential nor commute-related, such as entertainment and cultural facilities, senior centers, or parks.

Transit-oriented development (TOD). A development pattern created around a transit station or station that is characterized by higher density, mixed uses, a safe and attractive pedestrian environment, reduced parking, and direct and convenient access to the transit facility.

Value capture. A form of infrastructure finance that monetizes the increased real estate land values created by a public infrastructure investment. In the context of these Guidelines, value capture applies to transit, TOD, or related infrastructure investments. There are two broad categories of value capture: joint development (see definition) and district value capture. In Massachusetts, there are presently three forms of district value capture: District Infrastructure Finance (DIF), Infrastructure Improvement Incentive Program (I-Cubed), and the Local Infrastructure Development Program (LIDP). (See individual definitions.)

Vehicle miles traveled (VMT). A measurement of miles traveled by vehicles within a specified region in a specified time period. Annual VMT is often calculated per household and per acre, to illustrate the differing automobile intensities of high-density, mixed-use development and low-density, single-use development.

Very low-density housing. Residential development of more than one acre containing fewer than four dwelling units per acre,

Walkshed. The area around a transit station representing the distance that a typical work or school commuter will walk on a regular basis. In these Guidelines, the walkshed for a rapid transit or commuter rail station is generally considered to be a half-mile radius around the station entrance(s). For conventional bus stops, the walkshed is generally considered to be one quarter-mile.

Workforce housing. (See the combined definitions of Affordable Housing and Workforce Housing at the beginning of this Appendix.)

Zone of influence. The area within which land use and development may be directly influenced by the proximity of a transit station. It consists of the station's walkshed (see definition) plus, where applicable, an expanded area connected to the station by a particular corridor, viewshed, bikeshed, or first-mile/last-mile connection (see definition).

APPENDIX D: PROJECTS ILLUSTRATING FOUNDATIONAL TOD PRINCIPLES

Figure 2: Examples of Dense, Mixed-Use Development



Assembly Row, Somerville

Station Type: Transformational Subway

Mode: Heavy Rail (Orange Line), bus routes

Highlights:

- At 67 acres, among the northeast's largest TOD projects
- Unlocked by MBTA infill station (opened 2014)
- A joint development "P3" to fund, design, and build
- District infrastructure financed through DIF and I-Cubed
- Full plan: 2,100 units; 1 million sf retail; 1.75 million office, R&D; parkland on Mystic Riverfront
- Phase 1: 453 housing units, cinema, outlets, parkland
- Partners Health Care Administrative HQ: 4,500 jobs



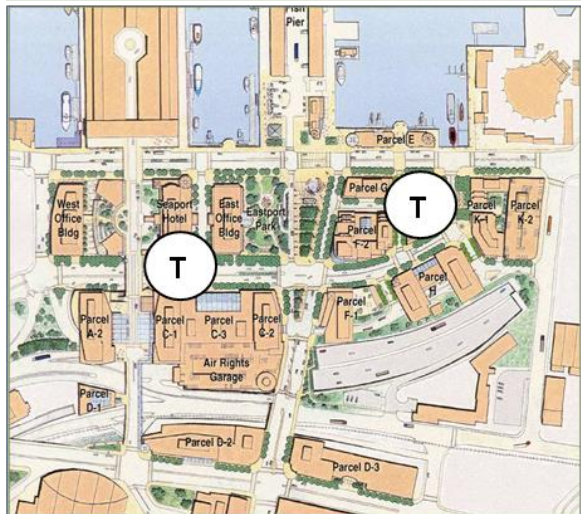
Downtown Haverhill

Station Type: Urban Gateway

Mode: Commuter Rail and Amtrak

Highlights:

- A model of Gateway City downtown revitalization
- In immediate station vicinity, four adaptive reuses:
- Cordovan Lofts, Hamel Mill Lofts, Hayes Building, Winter Street School: 520 units total; 40% affordable
- Harbor Place mixed-use: offices, retail, UMass Lowell satellite, 80 units (most affordable), riverfront park
- Early adopter of 40R zoning; extensive state support
- Housing supports historic downtown revival



South Boston Waterfront

Station Type: Seaport/Airport

Mode: Bus Rapid Transit (Silver Line) and ferry

Highlights:

- 300 acres of mixed-use TOD, created from scratch
- Organized around three Silver Line stations
- Silver Line to South Station and Airport heavily used
- Collaboration of BRA, Massport, MBTA, state
- Buildout capacity of 47 million sf built or entitled
- A mix of housing, office, tech, retail, institutional
- Parking freeze in effect since 1992
- Long-term transportation capacity options all non-SOV

Figure 3: Examples of Equitable TOD



Dudley Square, Boston

Station Type: Transformational Subway

Mode: Bus Rapid Transit (Silver Line), bus hub

Highlights:

- Roxbury's downtown; a four-decade revitalization effort
- Boston Public Schools HQ: opened 2015 in the iconic Ferdinand's Building; 500 employees at a transit hub
- Bartlett Place—sold by MBTA to Community Development Corporations (CDCs) in 2010
- Approved Master Plan: 323 units; 194 affordable, 129 mid-market; retail; school; 200 jobs
- TOD public realm supported by MassWorks grant



Jackson Square, Boston

Station Type: Transit Neighborhood

Mode: Heavy Rail (Orange Line), bus routes

Highlights:

- One of the key TOD sites on the Southwest Corridor
- 11 acres; a partnership of developers, CDCs, the City
- Full multi-phased plan: 400 units, over half affordable; 60,000 sf retail; community facilities
- A community crossroads: housing, jobs, retail, services
- Two state MassWorks grants for infrastructure
- Catalyst for other projects in Jackson Square station area



Ashland Rail Transit Apartments

Station Type: Suburban Transformation

Mode: Commuter Rail

Highlights:

- Town's Rail Transit District is a State Growth District
- Complex "greyfield" (former industrial) site
- MassWorks Grant for the district street/ped/bike network
- 398-unit private development includes 249 2BRs
- 20% affordable at 80% AMI
- Affordable units are same quality, location as market

Figure 4: Examples of TOD Supportive Public Realm



Brookline Village

Station Type: Transit Neighborhood

Mode: Light rail, bus routes

Highlights:

- Brookline Village station (D Branch) at center; Riverway stop (E Branch) at edge; 3 major bus routes
- Traditional rail transit mixed-use village center
- Brookline Place Project: 335,000 sf medical office and retail next to station
- Makeover of open space and ped-bike routes through the project connecting edge of district to station
- Complements MassDOT redesign of Route 9 ped-bike



Waterfront Square, Revere

Station Type: Transformational Subway

Mode: Heavy rail (Blue Line), bus routes

Highlights:

- Joint development of Wonderland park-and-ride lots
- Park-and-ride garage and bus access west of station; multi-phase housing/office/hotel/retail on ocean side
- Two core parcels adjoining station: 2.8 acres, FAR 3.7
- Key: seamless pedestrian routes over tracks, roads
- Solution: elevated plaza and bridge, connecting lobby level of buildings to station, sidewalks, park, beach,



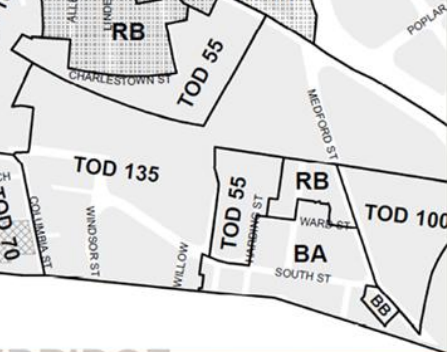


City Square, Worcester

Station Type: Urban Gateway

Mode: Amtrak, commuter rail, regional bus hub

Highlights:

- Failed mall from urban renewal era; wall of garages, disconnected streets, isolated from Union Station
- Redevelopment: 2.2 million sf multi-phase mixed-use
- Key: demolish mall, connect streets, create TOD grid
- Connect to bus hub and historic train station
- Major funding from MassWorks; value capture through District Infrastructure Financing (DIF)

	<h3>Somerville TOD Zoning</h3> <p>Station Type: Transformational Subway</p> <p>Mode: LRT (Green Line Extension), bus</p> <p>Highlights:</p> <ul style="list-style-type: none"> • Union Square / Boynton Yards redevelopment areas • 2009: City adopted TOD districts • Ratios: 1/dwelling unit; 1/1,000 sf office; 1/1,000 or 1,500 sf retail; 1/500 sf restaurant; .5/key hotel • Ratios can be reduced with shared parking or TDM • Garages: only above-grade counts in FAR; garage walls must be “lined” and/or screened • Surface lots must be side or rear
	<h3>North Quincy Joint Development</h3> <p>Station Type: Transformational Subway</p> <p>Mode: Heavy rail (Red Line)</p> <p>Highlights:</p> <ul style="list-style-type: none"> • 852-space park-and-ride lot • 100% occupied, fills early—must be replaced • 5.8-acre site on edge of developed (non-wetland) area • MBTA made site available for joint development • Garage replaces surface parking, enabling major mixed-use TOD project • Low parking ratios for joint development
	<h3>Beverly Depot Garage</h3> <p>Station Type: Urban Gateway</p> <p>Mode: Commuter rail, bus routes</p> <p>Highlights:</p> <ul style="list-style-type: none"> • MBTA needed a park-and-ride garage; strategy: • Combine with TOD, help revitalize Rantoul Street • Garage designed with frontage parcel for joint development; structural capacity for air rights • TOD shares the garage, avoiding excess parking • Frontage parcel: apartments over retail, hiding garage

Listed below are the credits for the projects depicted in the preceding pages:.

Density and Mixed Use Development

- Assembly Row: image, AECOM; data: Federal Realty Investment Trust.
- Downtown Haverhill: photo, AECOM; data: City of Haverhill Department of Planning and Economic Development and Archdiocese of Boston, Planning Office of Urban Affairs.
- South Boston Waterfront: image, AECOM; data, *A Better City: South Boston Transportation Plan* and AECOM.

Equitable Development

- Dudley Square: photo, Boston Globe; data: BPS Headquarters, City of Boston; Bartlett Commons, Boston Redevelopment Authority, Amended and Restated Master Plan for PDF Area 94, November 2015.
- Jackson Square: image, Jamaica Plain Neighborhood Development Corporation (JPNDC); data: JPNDC and City of Boston, Office of the Mayor, September 30, 2015.
- Ashland Rail Transit Apartments: image and data: Campanelli/Thorndike, Request for Site Plan Modification, October 2015.

Public Realm

- Brookline Village: image, Children's Hospital, presentation to Planning Board, 2015; data: *ibid.* and AECOM.
- Waterfront Square, Revere: image and data, Hunneman Investment Services, 2015
- City Square, Worcester: image and data, City of Worcester, Office of Development

Parking

- Somerville TOD Zoning: image and data, City of Somerville Zoning Code
- North Quincy Joint Development: image, AECOM; data: Mass. Realty Group
- Beverly Depot Garage: image and data, AECOM